



N 10/813,646

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: CHUNTHARAPAI ET AL. Examiner: UNKNOWN
Serial No.: 10/813,646 Group Art Unit: 1646
Filed: MARCH 29, 2004 Docket No.: 11669.144USC1
Confirmation No.: 5699 Customer No.: 23552
Title: MONOCLONAL ANTIBODIES TO TYPE I INTERFERON
RECEPTOR

CERTIFICATE UNDER 37 CFR 1.10:

"Express Mail" mailing label number: EV 408488293 US
Date of Deposit: August 23, 2004

I hereby certify that this paper or fee is being deposited with the U.S. Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to Commissioner for Patents, Mail Stop Missing Parts, P.O. Box 1450, Alexandria, VA 22313-1450.

By: 
Name: Sheryl A. Boerboom

INFORMATION DISCLOSURE STATEMENT (37 C.F.R. § 1.97(b))

Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted before the mailing date of a first Office Action on-the-merits. Accordingly, no fee is due for consideration of the items listed on the enclosed Form 1449.

In accordance with 37 C.F.R. §1.98(d), a copy of each document or other information listed on the enclosed Form 1449 is not provided because it was previously cited by or submitted to the U.S. Patent and Trademark Office in parent application, U.S. Serial No. 09/056,461 filed on April 7, 1998.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to

establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

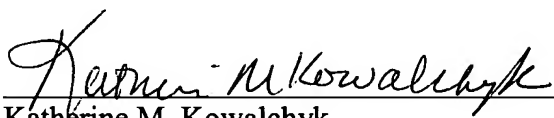
Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

Please charge any additional fees or credit any overpayment to Deposit Account No. 13-2725.

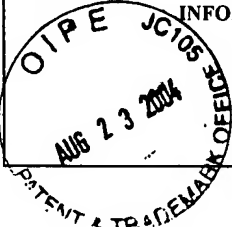
Respectfully submitted,

MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
(612) 332-5300

Date: August 23, 2004


Katherine M. Kowalchyk
Reg. No. 36,848
KMK:sab



FORM 1449*  INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number: 11669.144USC1	Application Number: 10/813,646
	Applicant: CHUNTHARAPAI ET AL.	
	Filing Date: MARCH 29, 2004	Group Art Unit: 1646

U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,460,811	10/1995	Goeddel et al.			
	5,516,515	05/1996	Vellucci et al.			

FOREIGN PATENT DOCUMENTS							
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	0 563 487	10/1993	EP				
	93/20187	10/1993	PCT				
	95/07716	03/1995	PCT				
	97/41229	11/1997	PCT				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
		Abramovich et al., "Differential Tyrosine Phosphorylation of the IFNAR Chain of the Type I Interferon Receptor and of an Associated Surface Protein in Response to IFN- α and IFN β ", <u>EMBO Journal</u> , 13(24):5871-5877 (1994)
		Abramovich et al., "Human IFN- α Receptor Detected by Two Monoclonal Antibodies", <u>J. Interferon Research</u> , 12(supp. 1):S217 (Sept. 9 – Oct. 2, 1992 Annual Mtg., International Society for Interferon Res.) (1992)
		Capon et al., "Two Distinct Families of Human and Bovine Interferon - α Genes are Coordinately Expressed and Encode Functional Polypeptides", <u>Molecular & Cellular Biology</u> , 5:768-779 (1985)
		Chuntharapai et al., "Structure-Function Studies of Human Interferon - α Receptor II Using Mabs", <u>FASEB Journal</u> , (Abst. #1877), 10(6):A1325 (April 30, 1996)
		Colamonici et al., "Study of the Structure of the IFN- $\alpha 2$ Receptor by Anti-IFN $\alpha 2$ Receptor Antibodies and Affinity Cross-Linking", <u>J. Interferon Res.</u> , (Abst. 118-6, Annual Int. Society for Interferon Res. Mtg., Nov. 14-18, 1990) 10(Supp.1):S158
		Colamonici et al., "Identification of a Novel Subunit of the Type I Interferon Receptor Localized to Human Chromosome 21", <u>Journal of Biological Chemistry</u> , 268(15):10895-10899 (1993)
		Colamonici et al., "Characterization of three Monoclonal Antibodies that Recognized the Interferon $\alpha 2$ Receptor", <u>Proc. Natl. Acad. Sci.</u> , 87:7230-7234 (1990)
		Colamonici et al., "Multichain Structure of the IFN- α Receptor on Hematopoietic Cells", <u>J. Immunol.</u> , 148(7):2125-2132 (1992)

EXAMINER	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number: 11669.144USC1	Application Number: 10/813,646
	Applicant: CHUNTHARAPAI ET AL.	
	Filing Date: MARCH 29, 2004	Group Art Unit: 1646

	Goeddel et al., "The Structure of Eight Distinct Cloned Human Leukocyte Interferon cDNAs", <u>Nature</u> , 290:20-26 (1981)
	Hauptmann et al., "A Novel Class of Human Type I Interferons", <u>Nucleic Acids Research</u> , 13(13):4739-4749 (1985)
	Ling et al., "Human Type I Interferon Receptor, IFNAR, is a Heavily Glycosylated 120-130 kD Membrane Protein", <u>J. Interferon & Cytokine Res.</u> , 15:56-61 (1995)
	Lu et al., "Structure-Function Studies of IFN- α R Using Mabs Binding to Different Epitopes", 9th International Congress of Immunology (July 23-29, 1995) Abst. 713:121 (1995)
	Novick et al., "Antibodies to IFN- α Receptor", <u>J. Interferon Research</u> (Nov. 3-8, 1991 Annual Mtg., International Society for Interferon Research) 11(Supp. 1):s203 (1991)
	Novick et al., "Monoclonal Antibodies to the Human IFN- α Receptor: Blocking of the Biological Activities of IFN- α and Purification of the Receptor", <u>J. Interferon Res.</u> , (Abst. P3-6, Nov. 14-18, 1988 Annual Mtg., International Society for Interferon Res.), 8(Supp. 1):s93 (1998)
	Roselen et al., "Detection of Functional Interferon Alpha Receptors in Human Neuroendocrine Tumor Cell Lines Using a New Monoclonal Antibody", <u>Eur. Cytokine Netw.</u> , 3(2):81-88 (1992)
	Russell-Harde et al., "Baculovirus Expression of the Human Interferon α/β Receptor and Characterization Using Monoclonal Antibodies", <u>J. Interferon Res.</u> (Poster Presentation 2: Receptors, Abst. PW2-1, Annual Mtg. of ISICR on the Inte.) 13(Supp. 1):s78 (1993)
	Russell-Harde et al., "Reconstitution of a High Affinity Binding Site for Type I Interferons", <u>Journal of Biol. Chemistry</u> , 270(44):26033-26036 (1995)
	Sagawa et al., "Identification of the Monoclonal Antibody Recognizing Receptor(s) for Interferon-alpha, -beta, or -gamma", <u>Tissue Antigens</u> (4th International Conference on Human Leukocyte Differ. Antigens) 33(2):331 (1989)
	Scott et al., "Production of Antibody to Human Interferon-Alpha Receptor Proteins", <u>Hybridoma</u> 5(1):81 (1986) (Abstract only)
	Taniguchi et al., "Construction and Identification of a Bacterial Plasmid Containing the Human Fibroblast Interferon Gene Sequence", <u>Proc. Japan Acad.</u> , 55(Ser. B):464-469 (1979)
	Taniguchi et al., "The Nucleotide Sequence of Human Fibroblast Interferon cDNA", <u>Gene</u> , 10:11-15 (1980)
	Uze et al., "Murine Tumor Cells Expressing the Gene for the Human Interferon $\alpha\beta$ Receptor Elicit Antibodies in Syngeneic Mice to the Active Form of the Receptor", <u>European Journal of Immunology</u> , 21:447-451 (1991)
	Chuntharapai et al., "Structure-function studies of human interferon- α Receptor II Using Mabs", poster, presented at the 1996 Joint Meeting of the International Cytokine Society and the International Society for Interferon and Cytokine Research (October 6-10, 1996)
	Lu et al., "Structure-Function Study of the Extracellular Domain of the Human IFN- α Receptor (hIFNAR1) Using Blocking Monoclonal Antibodies: The Role of Domains 1 and 2", <u>The Journal of Immunology</u> , 160:1782-1788 (1998)
	Cohen, "Ligand-Induced Association of the Type I Interferon Receptor Components", <u>Mol. Cell Biol.</u> , 15:4208

EXAMINER	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number: 11669.144USC1	Application Number: 10/813,646
	Applicant: CHUNTHARAPAI ET AL.	
	Filing Date: MARCH 29, 2004	Group Art Unit: 1646

		(1995)
		Cohen et al., "Cloning, Expression and Biological Activity of a New Variant of Human Interferon α Identified in Virus Induced Lymphoblastoid Cells", <u>Dev. Biol. Standard</u> , 60:111-122 (1995)
		Croze et al., "The Human 'Type Interferon Receptor'", <u>Journal of Biol. Chemistry</u> , 271:33165-33168 (1996)
		Domanski et al., "The Type-I Interferon Receptor, the Long and Short of it", <u>Cytokine and Growth Factor Rev.</u> , 7:143-151 (1996)
		Navarro et al., "Immunohistochemical Detection of the Type I Interferon Receptor in Human Fetal, Adult, and Neoplastic Tissues", <u>Modern Pathol.</u> , 9:150-156 (1996)
		Platanias et al., "Differents in Interferon α and β Signaling", <u>Journal of Biological Chemistry</u> , 271:23630-23633 (1996)
		Schellekens et al., "Factors Inhibiting IFN Activity", <u>Biother.</u> , 8:199-204 (1996)
		Tovey et al., "Role of the Type I Interferon in Allograft Rejection", <u>J. Leukocyte Biol.</u> , 59:512-517 (1996)
		Chuntharapai et al., "Determination of Residues Involved in Ligand Binding and Signal Transmission in the Human IFN- α Receptor 2", <u>The Journal of Immunology</u> , 163:766-773 (1999)
		Benoit et al., "A monoclonal antibody to recombinant human IFN- α receptor inhibits biologic activity of several species of human IFN- α , IFN- β , and IFN- ω ", <u>J. Immunol.</u> , 150(3):707-716 (1993)
		Cleary et al., "Knockout and reconstitution of a functional human type I interferon receptor complex", <u>Journal of Biological Chemistry</u> , 269(29):18747-18749 (1994)
		Constantinescu et al., "Role of interferon $\alpha\beta$ receptor chain 1 in the structure and transmembrane signaling of the interferon $\alpha\beta$ receptor complex", <u>Proc. Natl. Acad. Sci.</u> , 91:9602-9606 (1994)
		Domanski et al., "Cloning and expression of a long form of the β subunit of the interferon $\alpha\beta$ receptor that is required for signaling", <u>Journal of Biological Chemistry</u> , 270(37):21606-21611 (1995)
		Eid and Tovey, <u>J. Interferon Cytokine Res.</u> , 15:205-211 (1995)
		Liebert, "Nomenclature of the Human Interferon Genes", <u>J. Interferon Res.</u> , 13:443-444 (1993)
		Muller et al., "Functional role of type I and type II interferons in antiviral defense", <u>Science</u> , 264:1918-1921 (1994)
		Novick et al., "The human interferon $\alpha\beta$ receptor: characterization and molecular cloning", <u>Cell</u> , 77:391-400 (1994)
		Uze et al., "Genetic transfer of a functional human interferon α receptor into mouse cells: cloning and expression of its cDNA", <u>Cell</u> , 60:225-234 (1990)
		Weissmann and Weber, <u>Prog. Nucl. Acid Res. Mol. Biol.</u> , 33:251 (1986)

23552

PATENT TRADEMARK OFFICE

EXAMINER	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	